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AUTHOR Hansen, Joe B.; And Others
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ABSTRACT

The evaluation of the Portland (Oregon) Public Schools' Summer Program focused on academic achievement of its students, grades K-8, who participated in 1985. Courses included arts and crafts as well as basic and remedial instruction in reading, mathematics, and language. The achievement gains of summer school students were compared to the whole district, and the achievement of various student population groups was compared. Students were categorized as remedial, enrichment, talented and gifted, or special education program participants. An increased number of lower income students were able to attend because tuition was waived for qualified students. Portland Achievement Levels Tests RIT for Spring and Fall 1985 were used to assess pre- and post-summer school levels in reading, language arts, and mathematics. Results were examined for students who were not promoted, for remedial students, and for talented and gifted students. Most groups benefitted the most in mathematics. Students who were not promoted did less well than the overall district in reading and language. Remedial students showed gains, compared to the district, especially in reading and mathematics. Talented and gifted students gained more than the district in nearly all subjects and grades. It was suggested that conclusions should be made cautiously. Several tables are included. (GDC)

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ELEMENTARY SUMMER SCHOOL

1985 PROGRAM

IN THE

PORTLAND PUBLIC SCHOOLS

Research, Evaluation and Testing Department
Portland Public Schools
Portland, Oregon
Walter E. Hathaway, Director

Joe B. Hansen
Kan Yagi
Gary L. Williams

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EVALUATION OF THE 1985 ELEMENTARY SUMMER SCHOOL PROGRAM

Introduction

This report presents an evaluation of the Portland Public Schools' Summer School Program for 1985 for grades K through 8. The report is intended for use by the Director of Districtwide Programs, the Summer School Coordinator and the Board of Education as an aid in making decisions regarding the structure and operation of the Summer School Program.

The Portland Public Schools' Board of Education made a decision in 1985 to waive Summer School tuition for students who qualified for free or reduced lunch during the 1984-85 school year in order to make Summer School more accessible to students from lower income families. This policy was based on the observation that, except for those who were referred for remediation, disproportionately small numbers of students from lower income attendance areas (e.g. Chapter 1 schools) were attending Summer School. In order to accommodate the anticipated increase in student enrollment the number of sites offering Summer School was doubled from two in 1984 to four in 1985. The sites were Wilson, Grant, Franklin and Roosevelt.

Enrollment

Enrollment increased in 1985 by 174 percent over 1984. A total of 1,863 students attended Summer School in 1985 compared to 680

in 1984. Table 1 shows enrollment by grade for Tuition Paid students. Table 2 displays the enrollment by grade for Tuition Free students. It is not possible from available data to ascertain how many Tuition Free students would have enrolled in Summer School had the Board not changed the tuition policy. It seems obvious, however that the policy change resulted in a substantial increase in Tuition Free enrollment. Fifty two percent of the Tuition Paid students were enrolled in enrichment classes compared with 39 percent of the Tuition Free students. Remedial students comprised 40 percent of the Tuition Free enrollment and 32 percent of the Tuition Paid enrollment. Talented and Gifted students comprised 14 percent of the Tuition Paid and only two percent of the Tuition Free enrollment, whereas Special Education comprised two percent of Tuition Paid and seven percent of the Tuition Free students. Combined enrollment for Tuition Free and Tuition Paid students is shown in Table 3.

The variety of classes available to students ranged from non-academic subjects such as arts and crafts to basic and remedial instruction in reading, mathematics and language. Table 4 shows the percent of total class units provided by subject area.

TABLE 1

SUMMER SCHOOL ENROLLMENT
TUITION PAID STUDENTS

Summer School Status

Grade	Remedial	Enrichment	Talented and Gifted	Special Education	Total
K	11	12	0	0	23
1	17	14	11	0	42
2	17	10	13	1	41
3	16	11	10	0	37
4	10	39	10	1	60
5	15	47	11	0	73
6	17	33	5	2	57
7	24	45	1	3	73
8	16	23	0	1	40
Total	143	234	61	8	446
Percent	32.1	52.5	13.7	1.8	100.0

Missing Data = 24 students

TABLE 2

SUMMER SCHOOL ENROLLMENT
TUITION FREE STUDENTS

Grade	Summer School Status: Not Promoted	Remedial	Enrichment	Talented and Gifted	Special Education	Total
K	14	49	41	0	3	107
1	28	87	44	5	6	170
2	13	90	43	8	9	163
3	5	68	48	4	15	140
4	6	45	87	6	15	159
5	8	62	85	2	21	178
6	23	48	74	6	14	165
7	37	50	81	4	6	178
8	34	61	55	0	7	157
Total	168	560	558	35	96	1417
Percent	11.9	39.5	39.4	2.5	6.8	100.0

Missing Data = 24 students

Achievement

Achievement scores of the Summer School students were analyzed to address two questions:

1. Do Summer School students gain more in instructionally relevant achievement areas over the summer period than does the district as a whole?

2. Which types of students benefit the most from Summer School instruction in terms of achievement gains in instructionally related areas?

Portland Achievement Levels Tests RIT scores for Spring and Fall 1985 were used to assess pre and post Summer School levels in reading, language arts and mathematics. The RIT point difference between the Spring and Fall scores served as a measure of gain. Standardized scores were computed for the same period to provide a measure of gain relative to the district as a whole. All achievement data analyses were conducted on scores of the students who were intact for the 1984-85 school year and clear for the Spring - Fall 1985 period.[1]

All achievement results are reported in Tables 4, 5, and 6 for reading, mathematics and language arts,respectively. These achievement data can be use to make comparisons between groups within a grade, between grades within a group and to compare groups against the district within a grade. Using the RIT scores, gains can be compared across groups within a grade as shown on

[1] "Intact" means that the student was in the same school in the Spring of 1985 as in the Fall of 1984. "Clear" means that only those students with valid Spring and Fall 1985 scores were included in the analysis. Thus students who entered Summer School as K-2 or eighth grade students were not included.

the left hand side of Table 4. The standardized scores show the amount by which any group exceeds or Falls below the district average in terms of standard deviation units. Since the district average is the base against which these deviations are compared the standardized score for the district is defined as zero.

In the following section, the achievement of each Summer School group--not-promoted, remedial, enrichment and TAG--will be discussed for each of the three instructional areas tested.

Not-promoted or Retained Students

Reading: Not-promoted students, not surprisingly, displayed the lowest reading achievement scores upon entry to Summer School. In standardized score units, this group's scores ranged from -.18 to -1.53. Their gains ranged from a low of -.32 at grade 6 to a high of .23 at grade 4. Overall this group lost ground when compared with the district.

Mathematics: The Not-promoted group of students entered Summer School with Spring achievement scores ranging from -.18 to -.77 relative to the district as a whole. Their Fall standardized scores ranged from -.37 to -.73. The largest gain for this group was .28, at grade 6. The smallest gain was -.29, at grade 4. Grades 5 and 7 showed slightly better gains than the district for the summer.

TABLE 3

SUMMER SCHOOL ENROLLMENT
ALL STUDENTS

Grade	Summer School Status: Not Promoted	Remedial	Enrichment	Talented and Gifted	Special Education	Total
K	14	60	53	0	3	130
1	28	104	58	16	6	212
2	13	107	53	21	10	204
3	5	84	59	14	15	177
4	6	55	126	16	16	219
5	8	77	132	13	21	251
6	23	65	107	11	16	222
7	37	74	126	5	9	251
8	34	77	78	0	8	197
Total	168	703	792	96	104	1863
Percent	9.0	37.7	42.5	5.2	5.6	100.0

Missing Data = 24 students

TABLE 4

READING GAINS FOR SUMMER SCHOOL GROUPS AND THE DISTRICT
(groups are intact F84-S85 and clear S85-F85)

Summer School Group	Sp. '85 Grade	Raw RIT Scores Spring 1985	Raw RIT Scores Fall 1985	Raw RIT Scores Gain	N	Standardized Scores Spring 1985	Standardized Scores Fall 1985	Standardized Scores Gain
Not Promoted		173.75	176.50	2.75	4	-1.53	-1.56	.12
Remedial		181.66	185.43	3.78	58	-1.00	-.92	.25
Enrichment	3	194.22	195.35	1.13	54	-.15	-.21	-.09
TAG		212.60	217.53	4.93	15	1.09	1.38	.40
District		196.40	198.23	1.83	2680	.00	.00	.00
Not Promoted		182.50	185.25	2.75	4	-1.49	-1.39	.23
Remedial		191.45	194.60	3.15	20	-.88	-.75	.29
Enrichment	4	204.92	205.43	.50	103	.04	.00	-.09
TAG		224.80	227.50	2.70	10	1.40	1.52	.22
District		204.32	205.42	1.11	2771	.00	.00	.00
Not Promoted		202.33	200.83	-1.50	6	-.53	-.64	-.26
Remedial		192.46	193.11	.66	35	-1.20	-1.15	.05
Enrichment	5	208.44	209.02	.58	109	-.11	-.09	.04
TAG		228.00	228.79	.79	14	1.21	1.22	.07
District		210.10	210.41	.31	2570	.00	.00	.00
Not Promoted		207.20	206.10	-1.10	20	-.49	-.63	-.32
Remedial		201.22	202.22	1.00	27	-.88	-.88	.00
Enrichment	6	214.10	214.71	.61	79	-.03	-.06	-.06
TAG		232.89	233.89	1.00	9	1.21	1.21	.00
District		214.56	215.57	1.01	2742	.00	.00	.00
Not Promoted		217.25	218.75	1.50	28	-.18	-.16	.03
Remedial		207.22	210.17	2.96	23	-.83	-.71	.25
Enrichment	7	217.55	218.96	1.40	94	-.16	-.15	.01
TAG		230.00	233.00	3.00	4	.65	.75	.26
District		219.99	221.29	1.31	2646	.00	.00	.00

TABLE 5

MATHEMATICS GAINS FOR SUMMER SCHOOL GROUPS AND THE DISTRICT
(groups are intact F84-S85 and clear S85-F85)

Summer School Group	Sp. '85 Grade	Raw RIT Scores Spring 1985	Raw RIT Scores Fall 1985	Raw RIT Scores Gain	N	Standardized Scores Spring 1985	Standardized Scores Fall 1985	Standardized Scores Gain
Not Promoted		190.50	191.00	.50	4	-.51	-.72	-.19
Remedial		185.37	188.87	3.50	60	-.91	-.91	.21
Enrichment	3	193.52	195.57	2.06	54	-.28	-.32	.02
TAG		208.31	211.31	3.00	16	.85	1.08	.15
District		197.22	199.13	1.91	2703	.00	.00	.00
Not Promoted		204.00	202.75	-1.25	4	-.18	-.37	-.29
Remedial		194.20	196.85	2.65	20	-.90	-.87	.29
Enrichment	4	206.16	207.41	1.25	104	-.02	.03	.08
TAG		222.30	224.00	1.70	10	1.17	1.43	.15
District		206.43	207.11	.69	2772	.00	.00	.00
Not Promoted		202.50	202.83	.33	6	-.77	-.73	.16
Remedial		197.58	198.75	1.17	36	-1.11	-1.04	.29
Enrichment	5	211.01	210.77	-.25	110	-.17	-.14	.07
TAG		226.71	227.64	.93	14	.94	1.11	.26
District		213.39	212.71	-.69	2577	.00	.00	.00
Not Promoted		211.63	212.68	1.05	19	-.55	-.48	.28
Remedial		206.11	206.96	.86	28	-.90	-.86	.25
Enrichment	6	222.03	222.17	.14	78	.10	.15	.12
TAG		234.78	234.22	-.56	9	.91	.96	.00
District		220.40	219.84	-.56	2753	.00	.00	.00
Not Promoted		218.96	219.14	.18	28	-.50	-.46	.16
Remedial		211.36	211.09	-.27	22	-.94	-.94	.08
Enrichment	7	226.34	225.59	-.75	97	-.07	-.07	.00
TAG		235.00	240.50	5.50	4	.43	.82	1.11
District		227.54	226.84	-.70	2651	.00	.00	.00

TABLE 6

LANGUAGE USAGE GAINS FOR SUMMER SCHOOL GROUPS AND THE DISTRICT
(groups are intact F84-S85 and clear S85-F85)

Summer School Group	Sp. '85 Grade	Raw RIT Scores: Spring 1985	Raw RIT Scores: Fall 1985	Raw RIT Scores: Gain	N	Standardized Scores: Spring 1985	Standardized Scores: Fall 1985	Standardized Scores: Gain
Not Promoted		181.00	178.50	-2.50	4	-1.23	-1.51	-.58
Remedial		184.68	186.88	2.20	56	-.96	-.90	.09
Enrichment	3	195.87	195.35	-.52	54	-.14	-.29	-.30
TAG		214.81	215.06	.25	16	1.24	1.13	-.19
District		197.82	199.37	1.55	2671	.00	.00	.00
Not Promoted		188.00	188.00	.00	4	-1.26	-1.32	-.10
Remedial		191.90	192.55	.65	20	-.98	-.99	.00
Enrichment	4	204.76	204.97	.21	104	-.06	-.09	-.06
TAG		222.50	224.70	2.20	10	1.20	1.34	.25
District		205.65	206.24	.60	2756	.00	.00	.00
Not Promoted		205.33	199.00	-6.33	6	-.43	-.82	-.87
Remedial		197.61	196.12	-1.48	33	-.98	-1.03	-.10
Enrichment	5	209.58	209.11	-.46	111	-.12	-.10	.06
TAG		226.54	225.69	-.85	13	1.10	1.09	.00
District		211.29	210.45	-.85	2572	.00	.00	.00
Not Promoted		204.16	204.89	.74	19	-.80	-.74	.15
Remedial		201.48	200.38	-1.10	29	-.99	-1.07	-.16
Enrichment	6	214.74	215.23	.49	78	-.05	.00	.11
TAG		227.89	229.67	1.78	9	.89	1.03	.32
District		215.44	215.29	-.15	2741	.00	.00	.00
Not Promoted		214.44	212.63	-1.84	27	-.41	-.55	-.29
Remedial		207.09	209.22	2.13	23	-.94	-.80	.41
Enrichment	7	218.41	217.56	-.86	97	-.13	-.18	-.12
TAG		226.50	228.50	2.00	4	.45	.63	.38
District		220.21	220.01	-.20	2633	.00	.00	.00

Language Usage: The not-promoted students entered the Summer School with Language achievement scores even further below the district average than their math scores were. Their standardized score gains ranged from a low of -.87 to a high of .15. Only grade 6 had a gain that exceeded the district gain.

Remedial Students

Reading: The remedial group of students demonstrated uniformly positive reading achievement gains relative to the district, across grades 3 through 7. Spring reading scores for this group ranged from -.83 through -1.20 in standardized units. Gains ranged from zero at grade 6 to .29 at grade 4.

Mathematics: Remedial students entered the Summer School program with the lowest Spring scores in math of any of the groups. In standardized score units this group's entry level ranged from a low of -1.11 at grade 5 to a high of -.90 at grade 6. This group posted the highest gains in math, ranging from .08 to .29. Gains were fairly equal across grades 3 through 6, but somewhat lower at grade 7.

Language Usage: Entering scores for the remedial group of students in language were uniformly low, ranging from -.94 to -.99 in standardized scores. Gains in standardized score units were in the range of -.16 to .41, with the low occurring at grade 6 and the high at grade 7.

Enrichment Students

Reading: Enrichment students, as a group, showed minor losses compared to the district as a whole. Their reading achievement in the Spring was generally below the district average, ranging from -.16 to .04 in standardized score units. Gains hovered around the district average, ranging from lows of -.09 at grades 3 and 4 to a high of .04 at grade 5.

Mathematics: Students who enrolled in Summer School for enrichment purposes had Spring math scores generally higher than their remedial and not-promoted counterparts, ranging from a low of -.28 in standard score units to a high of .10. Gains for this group were consistently low, in the range of zero to .12 standardized score units. In other words, they seemed to do no better nor any worse than the district as a whole in terms of achievement growth over the summer.

Language Usage: As was the case in mathematics, enrichment students showed low order gains and some losses relative to the district as a whole in language. This group had entry scores in standardized terms ranging from a low of -.14 to a high of -.06. Gains ranged from a low of -.30 at grade 3, to a high of .11, at grade 6.

Talented and Gifted

Reading: Talented and Gifted students made moderate gains in reading compared with the district as a whole. This group entered Summer School with the highest Spring reading scores, ranging from .65 standardized score units at grade 7 to 1.40 at grade 4. Gains ranged from zero at grade 6 to .40 at grade 3.

Mathematics: Talented and Gifted students entered the Summer School with the highest overall math scores, as would be expected, and made uniformly positive gains compared with the district as a whole. This group had entry scores ranging from a low of .43 in standardized units to a high of 1.17. Gains ranged from zero at grade 6 to 1.11 at grade 7.

Language Usage: In Language Usage the TAG group made moderate gains at grades 4 through 7, but lost ground relative to the district at grade 3. They entered Summer School with high Spring scores, ranging from .45 to 1.24 in standardized units and gained from -.19 to .38.

Summary of Achievement Results

Figures 1,2,and 3 present graphic summaries of the achievement results for the 1985 Summer School session for reading ,math and language, respectively, in standard scores. In these graphs the

district mean is shown as zero. Gains greater than those made by the district as a whole appear above the horizontal line, while gains (or net losses) less than the district as a whole appear below the horizontal line.

While it may be assumed that all groups benefited from Summer School, it is obvious that some benefited more than others. The most positive results appear in math where, with the exception of the grade 3 and 4 not-promoted groups, all groups gained relative to the district as a whole. Not-promoted also did less well than the district as a whole in reading and language. It should be noted that Summer School language instruction focuses on writing composition and therefore would not be expected to positively impact PALT language scores.

Some highlights of these results are that remedial and not-promoted students performed especially well in reading at grades 3 and 4 and in math at grades 5 through 7. TAG students showed outstanding gains relative to the district in grade 7 math and performed generally well in all areas and grade levels tested except grade 3 language.

Cautions in Interpreting the Results

Three general cautions should be observed in interpreting these results. First, it is not possible to know what the gains of any of these groups would have been in the absence of Summer School

FIGURE 1. SUMMER READING GAINS

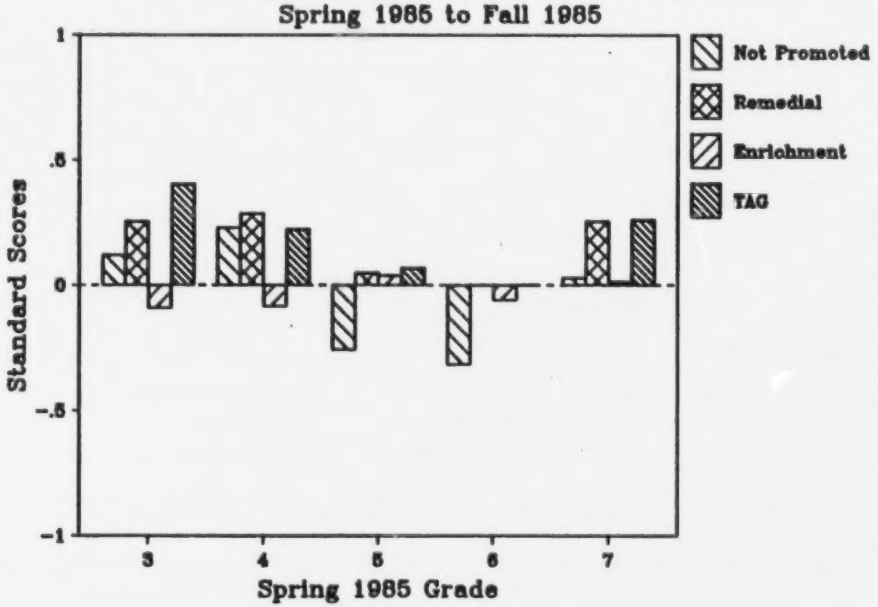


FIGURE 2. SUMMER MATH GAINS

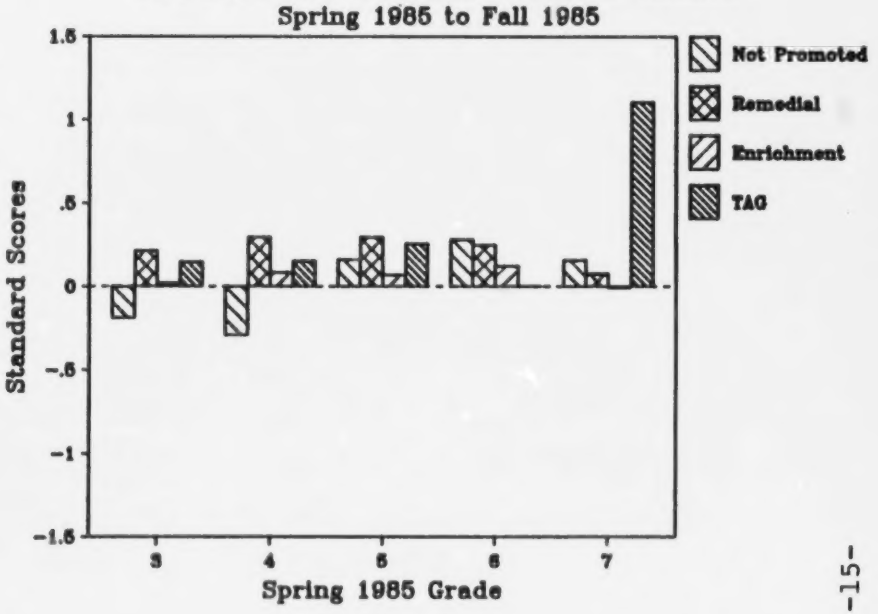
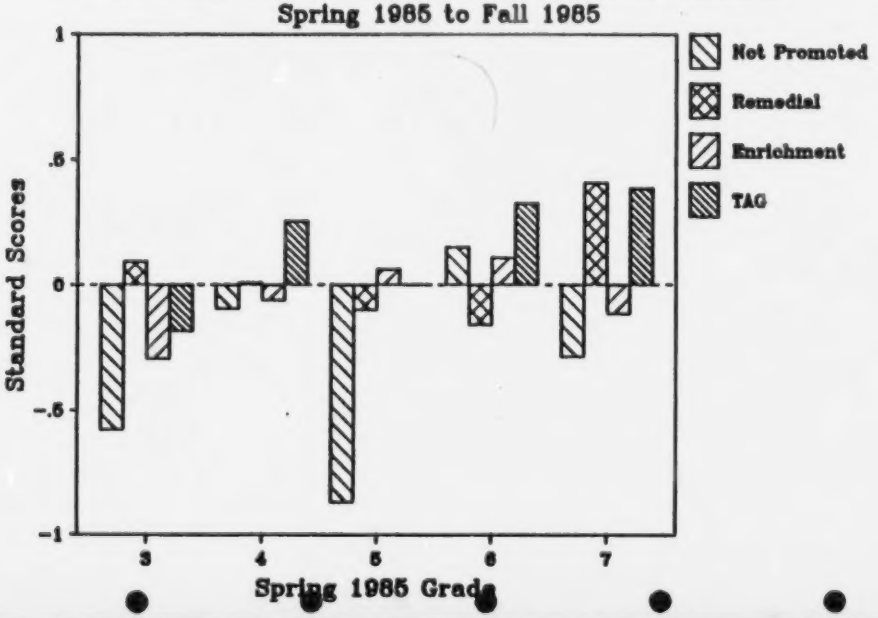


FIGURE 3. SUMMER LANGUAGE GAINS



Notes:

All gains are standardized. District mean is zero.

Groups are intact Fall '84 to Spring '85 and clear Spring '85 to Fall '85.

without having a control group of highly similar students who did not attend Summer School to compare these results against. Therefore we cannot say unequivocally what the effects of Summer School instruction are on student achievement. Second, changes in the Summer School population and in the metric used for analysis make comparisons with previous years inappropriate. The 1984 Summer School Evaluation Report made comparisons between achievement gains for 1983 and 1984. Such comparisons were deemed inappropriate for this report for two reasons: 1) the Summer School population changed from 1984 to 1985 as a result of the Board policy to waive tuition; and 2) a more sensitive and appropriate metric was used in this year's analysis, which will enable more meaningful comparisons to be made with subsequent years' data. Third, in many cases, group sizes at a particular grade level are very small, therefore there are more subject to fluctuations due to measurement error. These results, especially, should be viewed cautiously.

Conclusions

With all of the above cautions in mind the following general conclusions related to the evaluation questions are supported by the data.

1. Summer School students generally gained more over the summer months in instructionally relevant areas than non Summer School students as represented by the districtwide school

population. Gains were especially notable in math, but were also evident for most grade levels in reading.

2. Some losses were noted for not-promoted students,relative to the district, especially in language. Remedial students showed gains relative to the district, especially in reading and math. TAG students gained more than the district as a whole in nearly all subjects and grades.

Recommendations

Although the results of this evaluation are generally positive some of the findings suggest the need for additional information.

1. Future evaluations should examine the Summer School curriculum presented to each of the identified instructional groups in an attempt to find ways to strengthen the program, especially the language component.

2. The program demonstrated differential effectiveness for not-promoted students. Future evaluations should focus on the type of instruction provided these students and seek recommendations for improving their performance.

3. If at all possible, the next evaluation should include a

control group to enable more definite conclusions regarding the effectiveness of the Summer School program.

4. The Summer School program should not be expanded further until a more comprehensive evaluation can be conducted based on the above recommendations.